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ABSTRACT

This twenty-first in a series of twenty-nine learning modules on instructional execution is designed to give secondary and postsecondary vocational teachers skill and experience in preparing bulletin boards and exhibits in the classroom. The terminal objective for the module is to prepare bulletin boards and exhibits in an actual school situation. Introductory sections relate the competencies dealt with here to others in the program and list both the enabling objectives for the four learning experiences and the resources required. Materials in the learning experiences include required reading, a self-check quiz with model answers, performance check lists, and the teacher performance assessment form for use in evaluation of the terminal objective. (The modules on instructional execution are part of a larger series of 100 performance-based teacher education (PBTE) self-contained learning packages for use in preservice or inservice training of teachers in all occupational areas. Each of the field-tested modules focuses on the development of one or more specific professional competencies identified through research as important to vocational teachers. Materials are designed for use by teachers, either on an individual or group basis, working under the direction of one or more resource persons/instructors.) (BM)

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ED149085

MODULE

C-21

Prepare Bulletin Boards and Exhibits

MODULE C-21 OF CATEGORY C—INSTRUCTIONAL EXECUTION
PROFESSIONAL TEACHER EDUCATION MODULE SERIES

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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CE 014 321

FOREWORD

This module is one of a series of 100 performance-based teacher education (PBTE) learning packages focusing upon specific professional competencies of vocational teachers. The competencies upon which these modules are based were identified and verified through research as being important to successful vocational teaching at both the secondary and post-secondary levels of instruction. The modules are suitable for the preparation of teachers in all occupational areas.

Each module provides learning experiences that integrate theory and application; each culminates with criterion referenced assessment of the teacher's performance of the specified competency. The materials are designed for use by individual or groups of teachers in training working under the direction and with the assistance of teacher educators acting as resource persons. Resource persons should be skilled in the teacher competency being developed and should be thoroughly oriented to PBTE concepts and procedures in using these materials.

The design of the materials provides considerable flexibility for planning and conducting performance-based preservice and inservice teacher preparation programs to meet a wide variety of individual needs and interests. The materials are intended for use by universities and colleges, state departments of education, post-secondary institutions, local education agencies, and others responsible for the professional development of vocational teachers. Further information about the use of the modules in teacher education programs is contained in three related documents: **Student Guide to Using Performance-Based Teacher Education Materials, Resource Person Guide to Using Performance-Based Teacher Education Materials** and **Guide to Implementation of Performance-Based Teacher Education.**

The PBTE curriculum packages are products of a sustained research and development effort by The Center's Program for Professional Development for Vocational Education. Many individuals, institutions, and agencies participated with The Center and have made contributions to the systematic development, testing, revision, and refinement of these very significant training materials. Over 40 teacher educators provided input in development of initial versions of the modules; over 2,000 teachers and 300 resource persons in 20 universities, colleges, and post-secondary institutions used the materials and provided feedback to The Center for revision and refinement.

Special recognition for major individual roles in the direction, development, coordination of testing, revision, and refinement of these materials is extended to the following program staff: James B. Hamilton, Program Director; Robert E. Norton, Associate Program Director; Glen E. Fardig, Specialist; Lois Harrington, Program Assistant; and Karen Quinn, Program Assistant. Recognition is also extended to Kristy Ross, Technical Assistant; Joan Jones, Technical Assistant; and Jean Wisenbaugh, Artist for their contributions to the final refinement of the materials. Contributions made by former program staff toward developmental versions of these materials are also acknowledged. Calvin J. Cotrell directed the vocational teacher competency research studies upon which these modules are based and also directed the curriculum development effort from 1971–1972. Curtis R. Finch provided leadership for the program from 1972–1974.

Appreciation is also extended to all those outside The Center (consultants, field site coordinators, teacher educators, teachers, and others) who contributed so generously in various phases of the total effort. Early versions of the materials were developed by The Center in cooperation with the vocational teacher education faculties at Oregon State University and at the University of Missouri-Columbia. Preliminary testing of the materials was conducted at Oregon State University, Temple University, and University of Missouri-Columbia.

Following preliminary testing, major revision of all materials was performed by Center Staff with the assistance of numerous consultants and visiting scholars from throughout the country.

Advanced testing of the materials was carried out with assistance of the vocational teacher educators and students of Central Washington State College; Colorado State University; Ferris State College, Michigan; Florida State University; Holland College, P.E.I., Canada; Oklahoma State University; Rutgers University; State University College at Buffalo; Temple University; University of Arizona; University of Michigan-Flint; University of Minnesota-Twin Cities; University of Nebraska-Lincoln; University of Northern Colorado; University of Pittsburgh; University of Tennessee; University of Vermont; and Utah State University.

The Center is grateful to the National Institute of Education for sponsorship of this PBTE curriculum development effort from 1972 through its completion. Appreciation is extended to the Bureau of Occupational and Adult Education of the U.S. Office of Education for their sponsorship of training and advanced testing of the materials at 10 sites under provisions of EFDA Part F, Section 553. Recognition of funding support of the advanced testing effort is also extended to Ferris State College, Holland College, Temple University, and the University of Michigan-Flint.

Robert E. Taylor
Director
The Center for Vocational Education

THE CENTER FOR VOCATIONAL EDUCATION
The Ohio State University, 1960 Kenny Road, Columbus, Ohio 43210

The Center for Vocational Education's mission is to increase the ability of diverse agencies, institutions, and organizations to solve educational problems relating to individual career planning and preparation. The Center fulfills its mission by:

- Generating knowledge through research.
- Developing educational programs and products.
- Evaluating individual program needs and outcomes.
- Installing educational programs and products.
- Operating information systems and services.
- Conducting leadership development and training programs.

AAVIM

AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS

Engineering Center
Athens, Georgia 30602

The American Association for Vocational Instructional Materials (AAVIM) is an interstate organization of universities, colleges and divisions of vocational education devoted to the improvement of teaching through better information and teaching aids.

INTRODUCTION

It would perhaps be easy to dismiss the classroom bulletin board as a device for posting notices or safety posters, and the exhibit case as a place for showing student projects. This would be an unfortunate misconception, for bulletin boards and exhibits can be real instruments for many kinds of teaching and learning. Both the bulletin board for two-dimensional materials and the exhibit for three-dimensional objects can be considered as important "instructional displays" or "study displays."

Primarily visual in nature, instructional displays provide a unique and often very effective approach to student learning. Such dramatic and attractive visual presentations of ideas can reach most students, each in a personal way. Some students learn and retain information from a display more readily and longer than they can from other instructional approaches. All will benefit from the variation in stimulus a good display provides.

The teacher can use displays to attract student attention to new ideas and motivate students to pursue new learnings. A well-planned display can impart information, explain concepts in a forceful manner, and even summarize units of instruction. Through displays, the teacher can help students reach important instructional objectives.

Every vocational teacher should be able to prepare study displays. The teacher need not possess a lot of personal creativity or have had special art training. What is required is an understanding of the educational uses of study displays and a knowledge of some of the fundamental display techniques and materials. This can be acquired through a study of this module and through the experience of preparing bulletin boards and exhibits in the classroom.

ABOUT THIS MODULE

Objectives

Terminal Objective: In an actual school situation, prepare bulletin boards and exhibits. Your performance will be assessed by your resource person, using the Teacher Performance Assessment Form, pp. 39–41 (*Learning Experience IV*).

Enabling Objectives

1. After completing the required reading, demonstrate knowledge of the concepts involved in the instructional use of bulletin boards and exhibits in the classroom (*Learning Experience I*).
2. After completing the required reading, prepare a bulletin board display relating to a student performance objective in your occupational specialty (*Learning Experience II*).
3. After completing the required reading, prepare an exhibit relating to a student performance objective in your occupational specialty (*Learning Experience III*).

Prerequisites

To complete this module, you must have competency in developing a unit plan. If you do not already have this competency, meet with your resource person to determine what method you will use to gain this skill. One option is to complete the information and practice activities in the following module:

- *Develop a Unit of Instruction*, Module B–3

Resources

A list of the outside resources which supplement those contained within the module follows. Check with your resource person (1) to determine the availability and the location of these resources, (2) to locate additional references in your occupational specialty, and (3) to get assistance in setting up activities with peers or observations of skilled teachers, if necessary. Your resource person may also be contacted if you have any difficulty with directions, or in assessing your progress at any time.

Learning Experience I

No outside resources

Learning Experience II

Required

Materials (e.g., bulletin board space, background materials, fastening devices and tools, letters and lettering instruments, construction paper, paints, cutting tools) to use in preparing a bulletin board.

Optional

Reference: Wittich, Walter A. and Charles F. Schuller. *Instructional Technology: Its Nature and Use.* New York, NY: Harper & Row, Publishers, Inc., 1973.

Reference: Lockridge, J. Preston. *Educational Displays and Exhibits.* Austin, TX: The University of Texas, Division of Extension, 1966.

A peer experienced in preparing bulletin boards to critique your bulletin board.

Learning Experience III

Required

Materials (e.g., real objects such as specimens, tools, etc.; exhibit space; background materials; fastening devices and tools; letters and lettering instruments; construction paper; paints; cutting tools; lighting devices) to use in preparing an exhibit.

Optional

A peer experienced in preparing exhibits to critique your exhibit.

Learning Experience IV

Required

An actual school situation in which you can prepare bulletin boards and exhibits.

A resource person to assess your competency in preparing bulletin boards and exhibits.

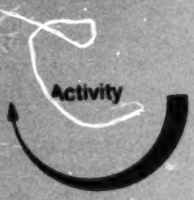
This module covers performance element numbers 119, 120 from Calvin J. Cotrell *et al.*, *Model Curricula for Vocational and Technical Education: Report No. V* (Columbus, OH: The Center for Vocational Education, The Ohio State University, 1972). The 384 elements in this document form the research base for all The Center's PBTE module development.

For information about the general organization of each module, general procedures for their use, and terminology which is common to all 100 modules, see About Using The Center's PBTE Modules on the inside back cover.

Learning Experience I

OVERVIEW

After completing the required reading, demonstrate knowledge of the concepts involved in the instructional use of bulletin boards and exhibits in the classroom.



You will be reading the information sheet, The Instructional Use of Bulletin Boards and Exhibits, pp. 6–10.

You will be demonstrating knowledge of the concepts involved in the instructional use of bulletin boards and exhibits by completing the Self-Check, pp. 11–13.

You will be evaluating your competency by comparing your completed Self-Check with the Model Answers, pp. 15–16.

Activity

For information about the educational purposes of bulletin boards and exhibits, and the techniques of using them to help students achieve instructional objectives, read the following information sheet:

THE INSTRUCTIONAL USE OF BULLETIN BOARDS AND EXHIBITS

During recent years the learning environment within schools has become much richer. In place of bare boxes for classrooms and factory-like shops, we now have attractive and colorful surroundings full of interesting things to see. There are display cases, bulletin boards, display walls, and exhibit areas. Schools may have not only chalkboards but also corkboards, magnetic boards, and hook and loop boards. All of these are

intended to allow the teacher and students to communicate with each other, to excite interest in new ideas, and to promote learning.

We should no longer think of a "bulletin board" as merely a convenient spot for thumbtacking school notices, or an exhibit shelf as something to be dusted once a year to prepare for Parents' Night. A broader and more useful concept is that of the "study display" which forms a vital and integral part of the total learning environment. The study display includes not only the familiar bulletin board and display case, but also any two- or three-dimensional collections of visual learning materials organized for study or motivational purposes.

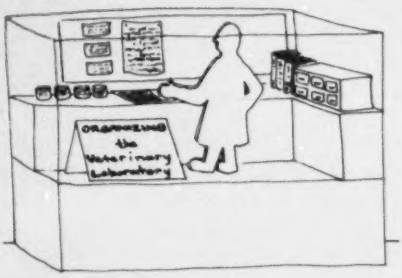
Study displays may be on the walls, in the corridor, in the laboratory or shop, or perhaps in outdoor work and learning areas. Materials may include photographs, printed clippings, charts, graphs, diagrams, specimens, models, or shop products. Study displays may be prepared by the teacher, the students, or as a cooperative effort. Colorful and fresh displays create interest and involvement, and suggest a vital and active learning situation.

Though there are many kinds of study displays, it is convenient to discuss them in terms of their basic materials. Displays composed of basically two-dimensional visual materials can be categorized as **bulletin boards.** Those involving three-dimensional objects are **exhibits.** The problems of designing and constructing bulletin boards are somewhat different from those of exhibits. However, these two kinds of displays share many of the same educational purposes and characteristics.

The primary and functional purpose of the study displays of bulletin boards and exhibits is that of promoting student learning. This is clearly distinct from school exhibits designed to enhance public relations, inform parents, or promote vocational programs. Both kinds of efforts are worthy, but we are primarily concerned with **instructional** displays here.

If the study display is to promote student learning, it should have some clearly defined learning objective. The objective of the display should be directly related to a specific performance objective of the vocational program. In addition, you, as a vocational teacher, should choose to use a display only if it is the most effective or efficient

approach to achieving the objective. This is in direct contrast to the process of deciding that it would be nice to construct a display, and then searching around for some theme that would be appropriate. For example, if one objective in the machine shop is that students be able to recognize precision measuring instruments, then a clearly labelled display of micrometers, gauges, dial test indicators, etc., would be an effective way to help students achieve this objective.



When the instructional objective has been identified, you should examine possible alternative instructional approaches, such as films, slides, readings, group project, or class demonstration.

As you study alternative methods for achieving the objective, you will need to consider several factors. Among these are the content to be included, the abilities and needs of the students, the variations in student learning styles, and the visual aspects of the subject. If you are working with post-secondary students in a dental hygienist program, for example, it may be more effective to produce an illustrated handout on tooth decay for student study than to design and construct a visual display on the topic. A class for child care workers, however, may be able to learn far more from a dramatic exhibit than from the printed word.

Practical considerations also may be important, such as construction time, the availability of suitable display space in the classroom or laboratory, access to display materials, and so on. Perhaps more than most school subjects, vocational subjects lend themselves to visual presentation, and there is often a wealth of usable material from which to choose.

If the study display is seen as the best approach, then the specific form of the display (whether two- or three-dimensional, for example) can be developed. The display, of course, need not be the sole approach to the objective, but may be part of a comprehensive instructional effort.

In educational terms, displays can serve three primary purposes: (1) motivating and stimulating student interest, (2) enriching instruction and transmitting information, and (3) summarizing the key ideas of the instructional unit. Secondary purposes, but still valuable ones, are to stimulate creative visual thinking in students, and provide a focus for cooperative student effort. Any effective display tends to fulfill several of these purposes at the same time, but you should have a clear idea of the specific purposes you are attempting to achieve in the display.

As **motivation,** the effective display will attract students' attention to the topic, and arouse their interest to the point of wanting to learn more about it. For example, a bulletin board of job opportunities and pay scales would probably attract students' attention and, hopefully, motivate them. A display of high quality silk screen work presented as the graphic arts class is about to begin work on such a unit, could also serve to motivate students.

An instructional display can **enrich instruction and transmit information** because it is a flexible and convenient device for presenting a great variety of information pertinent to the topic. It can aid comprehension by clarifying and simplifying concepts and by transforming the abstract into more concrete terms. The following examples illustrate this use of displays in the vocational classroom.

- Exhibit of English and Metric units of measure to illustrate and compare the two
- Carpentry: Exhibit of wood fasteners with correct names attached and uses illustrated
- Health Services: Display illustrating and comparing food values of common foods
- Agriculture: Display of fruit tree leaves showing symptoms of common leaf diseases

Displays can be **summary** in nature, pulling together the main ideas of the topic and presenting them in an organized and forceful way. Summary displays can also be used in the evaluation or examination process. For example, a display of the best student work in the instructional unit could serve this summary purpose. In electronics, a display of actual resistors along with a list of values which students can then match could be part of the evaluation process at the end of a unit.

One of the most desirable characteristics of a well-planned display is that it appeals to almost all students in some way or other. The creative and visually sensitive student will be attracted to its dynamic qualities, and the eager learner will benefit from its content. The slower learner can study it and learn at his/her own pace, and can return to it as necessary for reinforcement or relearning. The less verbal and less abstract thinker

will find the exhibit of real objects and simple themes a help in learning. All students can gain experience from the display in ordering and organizing ideas.

There are a number of side benefits in the use of bulletin boards and exhibits as devices for teaching and learning. Creative teachers are constantly devising new ways to capitalize on these benefits.

- When only single copies or examples of materials are available, displays allow everyone in the class to study them.
- Displays save time by allowing students to study materials for which class time is not available.
- Reinforcement and reward for good work is possible by displaying the results of student class and laboratory projects.
- Displays for reference allow the student to study them as often as necessary in order to learn. The student can compare his own work, for example, with the standard of excellence on display.
- Being involved in planning and preparing a display helps students to learn how to communicate ideas visually and develop group skills.

The display technique has its limitations. A well-prepared display takes a considerable amount of time and effort to complete. In addition, the display technique can be overused. You must, therefore, select carefully those educational occasions and topics in the vocational program for which displays can make their greatest contribution. Then, too, there is nothing less attractive in the classroom than a worn-out display, left up for weeks or months after its learning impact has been achieved.

Finally, using the display technique effectively requires that you understand its purposes and possibilities. Much more could be done with displays for learning if teachers could develop their knowledge of the medium and their skill in its use.

There is a real place for student involvement in display preparation. Of course, it is not necessary for every display to involve students, but there are many circumstances in which planning and preparing a display can be a valuable learning experience. In some programs, such as in distributive education, student involvement in the planning and preparation of displays is a vital element in the achievement of program goals and objectives. Students who are artistically creative can

make a contribution to the work of the class; students who need personal recognition can receive it by constructing a display; and, small groups can learn to work together on a display project.

In addition, all students can gain from the experience of planning, selecting, organizing ideas, and using the visual expression that preparing a display requires. You should ensure that the same few students (those with special talents or interests, for example) are not burdened with more than their fair share of the work, or given the only opportunity for participating in such a learning experience.

Students can help prepare the study display by collecting materials and objects from around the home, school, or community. Students can contribute by finishing and mounting their own class work, such as plans or drawings, especially for the class display. At appropriate times, individual students or small groups can be given the basic responsibility of designing and preparing a complete display, with you acting as resource person and advisor. Good displays can be made cooperatively among vocational programs, with the graphics students making the display signs, electricity students doing the lighting, carpentry students the woodwork, and so forth.

Planning the Study Display

Whether the display takes the form of a bulletin board, display panel, or exhibit, it must have a purpose and a plan if it is to succeed. A complex three-dimensional exhibit may require more elaborate plans that a simple bulletin board with a single concept. However, **all** will need some systematic thought and organized effort. The steps described here are basic ones, though they need not all be done in rigid sequence.

Decide on the purpose of the display.—Establish the performance objective to be accomplished—put it down in writing. Describe the basic idea involved, specify the facts and figures to be used, and decide on the technique by which they will be shown. Think clearly about whether you are attempting to arouse interest, explain a technical process, present important facts, state a problem, or summarize crucial ideas.

Collect the needed content materials.—You, alone or with the help of students, should search for materials to be included, such as newspaper and magazine clippings, photographs, charts, graphs, diagrams, real objects, samples of products, etc. Probably more should be collected than will actually be used, and only the best actually chosen for display.

Select the content of the display.—There should be a rich content of ideas and information in the display so students can study it in detail. A display that is merely attractive but without content contributes little. While the display should be kept simple in form, it should also contain much in information or thought-provoking ideas. Students should not only be able to learn from the display, but should be stimulated and given directions for further learning. The good display selects the most stimulating or provocative information and presents it in a dramatic fashion.

Make a display plan.—Take the time to work out a sketch plan on paper (ruled graph paper is often helpful). Show the measurements, placement of the materials, overall design scheme, color choices, and lettering (see Sample 1). One should not be satisfied with quick first efforts but should try out a number of arrangements and schemes. Take the materials and place them on a table top or the floor, moving them around until you are satisfied that you have a good plan. Sometimes it is helpful to construct simple paper or cardboard models to help visualize the final results.

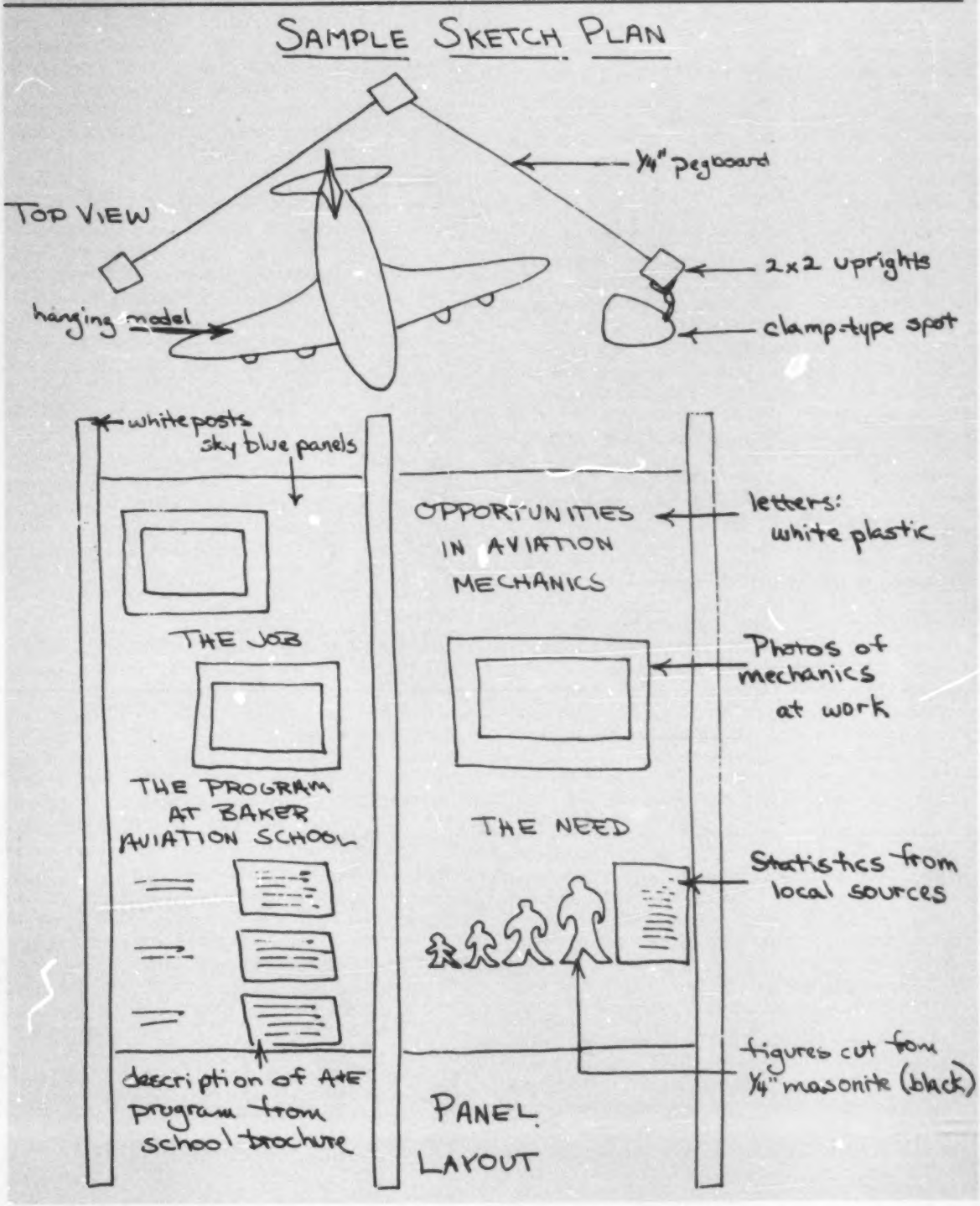
Assemble the required supplies.—The construction of the display will require a variety of physical materials which may include background papers or cloth, three-dimensional letters, chalk or poster paint, tacks, wire adhesives, and lights. Experienced teachers gradually accumulate a stock of these items so that they are readily available to them.

Carry out the plan.—If the plan has been worked out with thought and care, and in sufficient detail, the actual execution of the plans should go forward with pleasant efficiency. If students are cooperating in preparing the display, they can do much of the actual work of construction, while the teacher provides final suggestions, last minute decisions, and encouragement. If you are doing the work, you should set aside time outside class hours to carry out the plan.

Evaluate the result.—After the display has been completed and students have had an opportunity to respond to it, it is worthwhile for you to take a little time to formally evaluate the result of all the effort. The first and most obvious question is: Does the display have a clearly defined purpose, and does it achieve that purpose? Did the students respond as expected, and did the display change their behavior? (In other words, did they learn what you wanted them to learn?) In terms of design, is the display attractive, was it done with neatness and craftsmanship, and does it have a simple unity of design?

SAMPLE 1

SKETCH PLAN



The following items check your comprehension of the material in the information sheet, The Instructional Use of Bulletin Boards and Exhibits, pp. 6–10. Each of the four items requires a short essay-type response. Please explain fully, but briefly, and make sure you respond to all parts of each item.

SELF-CHECK

1. You are teaching a vocational unit that is primarily concerned with theory. What are some of the factors that you would consider in deciding whether some form of study display would be helpful in achieving the objectives of the unit?

2. In what teaching situations would you choose a bulletin board as a better instructional device than an exhibit? Explain your choice.

3. What, if anything, is wrong with exhibits whose only purpose is the display of student projects?

4. Two teachers in the Deep-Rest Area Vocational School are planning displays for the three-foot by six-foot bulletin boards in their respective classrooms. Critique the display plans of the two teachers in terms of their instructional intent, their application of the principles of effective study displays, their probable effect on students, and their method of preparation. (Do not comment on the artistic qualities, or lack thereof, of the sketch plans themselves.)

   a. In the Industrial Electricity Shop, Mr. Watthauer is going to prepare another display on safety . . . a topic on which he has strong feelings. Because he will brook no nonsense or poor workmanship in his domain, he has earned the respectful nickname of "Killer" Watthauer among his students.

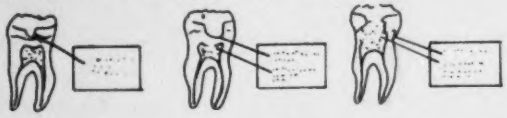
      His sketch plan for the bulletin board (shown below) indicates electric-blue lettering cut from paper and glued to a shocking-pink paper background. Mr. Watthauer intends to draw the cartoon figure with a thick felt-tip pen. He is unsure of his artistic ability, so he will do the work on Saturday morning when nobody is around to criticize.

b. Down the hall in the Health Occupations classroom, Miss Ginger Vitis plans a display related to her series of lessons on dental health occupations. The objective is that students should be able to recognize the conditions of healthy and damaged teeth.

Miss Vitis' plans for the display (shown below) include having five students each draw one of the teeth on white illustration board, while three others will write the text describing the progress of dental caries. Miss Vitis herself will apply the white plastic letters to the background of pale blue cloth.

PARTS OF A HEALTHY TOOTH

GROWTH OF A CAVITY



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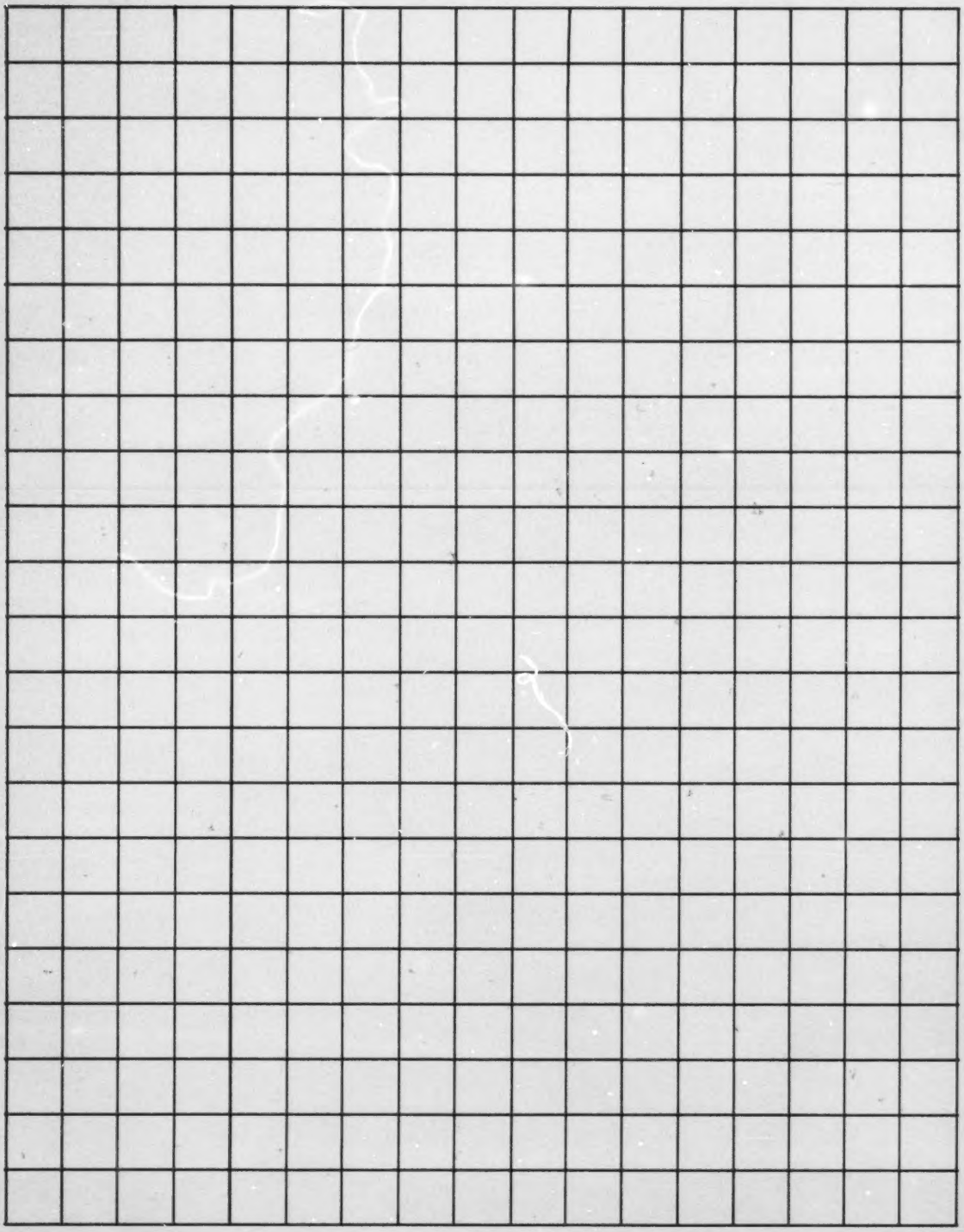


Compare your written responses on the Self-Check with the Model Answers given below. Your responses need not exactly duplicate the model responses; however, you should have covered the same **major** points.

MODEL ANSWERS

1. Building a display around the explanation of an abstract theory depends on whether the ideas can be effectively presented in graphic visual form. Theory explainable only in mathematical terms, for example, would not be a good subject for a display. Simply reproducing a verbal explanation from a book and posting it on a bulletin board probably isn't worth the effort.

   When the theory can be described visually, however, a display might be an enormous help to students. The display might take the form of a model (e.g., model of a molecular structure), a diagram (e.g., comparison of electron flow with water in a pipe), etc.

   Some teachers are very imaginative in their ability to develop visual analogies, and they should use this ability to speed student learning through displays. Teachers who have trouble thinking in visual terms can get ideas from displays in technical museums, books, and technical publications.

2. While there is no hard and fast line between the uses of a bulletin board and those of an exhibit, materials often lend themselves to one form or another. The most obvious situation is one in which the instructional materials are purely two-dimensional. Diagrams, maps, graphs, drawings, photos, along with explanatory text call for a bulletin board display. A series of ideas is often easier to organize in a lucid and comprehensible way within the confines of a bulletin board, using color, placement on the board, and size to emphasize the important points.

   If students are to be deeply involved in the planning and preparation of a display, they will usually be best able to handle the two-dimensional form. Sometimes teachers find an ever-changing display an effective device, with students finding and bringing in clippings or other materials on a given topic. Such a technique works very well if a bulletin board is set up for it.

3. There is nothing wrong, really. Exhibits of student projects may serve the motivational and reinforcement functions of displays very well. Students like to have their good work given recognition, and they will make extra effort to gain such recognition. The project exhibit also reinforces such desirable behaviors as accuracy, neatness, craftsmanship, and creative problem solving.

   The trouble with project exhibits is that they are very limited in purpose and scope. Other types of exhibits are also needed to meet most instructional objectives. Exhibits can be designed to present information about tools, materials, and processes. Concepts, theories, and abstract ideas can be given well-organized concrete form by exhibits. The great potential for student learning by viewing and interacting with exhibits will be lost if the teacher thinks of exhibits primarily in terms of displaying student work.

4. Both of these bulletin board displays look like they will attract the attention of the students—Mr. Watthauer's by the striking use of caption and cartoon, Miss Vitis' by the giant-size teeth and dramatic cavities. The basic difference between the two bulletin boards is what the students are supposed to learn from them.

   a. In spite of his nickname, Mr. Watthauer seems to have some sense of humor. His display, however, appears to have only the vague purpose of cleverly reminding his students that working with electricity may be hazardous to their health. Are the students being encouraged to drop the course? Are they supposed to reread the safety manual? Or are they being told to use grease on their hair so it won't stand on end when they get a shock? The display provides no information on this, nor does it furnish any other safety information.

      Perhaps if Mr. Watthauer got his students involved in developing ideas for the bulletin board, it might have more content and meaning for them. As it is now, the students may get a quick charge out of the bulletin board, but the final result may be negative.

b. Miss Vitis' display, on the other hand, seems directly related to an instructional objective of her course. The purpose can be clearly understood and the whole design is simple and unified. After attracting attention, the display provides a considerable amount of information—by drawings, captions, and short reading material.

The students who assist should learn a good deal as they prepare the detailed drawings and look up the other information. Because eight students are participating, the work will not put too much burden on a few students. Overall, the plan appears not only attractive but gives the students something to sink their teeth into, and was not prepared just because some bulletin board space required filling.

LEVEL OF PERFORMANCE: Your completed Self-Check should have covered the same **major** points as the model responses. If you missed some points or have questions about any additional points you made, review the material in the information sheet, The Instructional Use of Bulletin Boards and Exhibits, pp.6–10, or check with your resource person if necessary.

Learning Experience II

OVERVIEW

After completing the required reading, prepare a bulletin board display relating to a student performance objective in your occupational specialty.

You will be reading the information sheet, Planning and Preparing Bulletin Boards, pp. 19–22.

You may wish to read the supplementary references, Wittich and Schuller, *Instructional Technology: Its Nature and Use*, pp. 196–228; and Lockridge, *Educational Displays and Exhibits*, pp. 1–36.

You will be selecting a student performance objective in your occupational area and selecting a theme or idea related to that objective that is suitable for illustrating with a bulletin board display.

You will be making a complete sketch plan for your bulletin board display.

You will be carrying out your plan by preparing the bulletin board display.

You may wish to ask a peer with experience in preparing bulletin boards to critique your bulletin board, using the Bulletin Board Checklist, pp. 25–26.

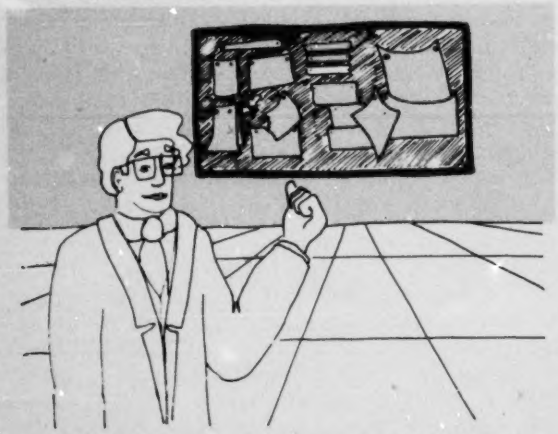
You will be evaluating your competency in preparing a bulletin board display, using the Bulletin Board Checklist, pp. 27–28.

Activity

For information about the principles of designing bulletin boards, and about the techniques and materials of construction, read the following information sheet:

PLANNING AND PREPARING BULLETIN BOARDS

Classroom instructional bulletin boards share with all other forms of study displays many of the same characteristics, planning needs, and design considerations. There are, however, elements of organization, appropriate materials, and certain limitations that apply with special emphasis to the bulletin board. Typically, the primary use of a bulletin board in a classroom has been to provide a convenient place to post administrative notices and school activity announcements, usually in a kind of helter-skelter fashion.



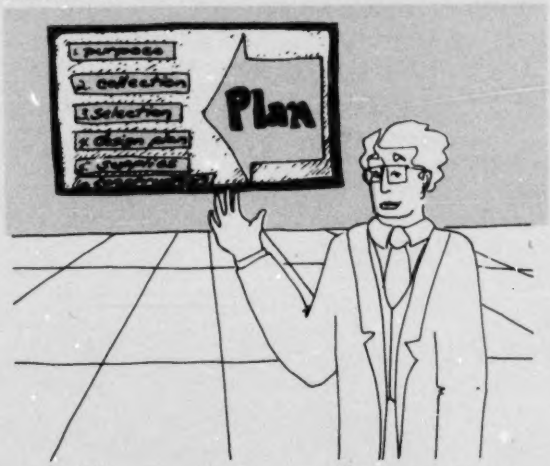
It should be clear at this point, however, that such a bulletin board is not a study display and is not the concern of this learning activity. A small board located near the classroom door should be adequate for posting notices, and even this device could be made more effective by utilizing some good design techniques.

The **instructional bulletin board** has a unique and important place in the everyday instructional program of vocational education. The content of the course can be made visual and presented in an interesting manner. Often, complex ideas can be organized to make them comprehensible and memorable. With minor exceptions, the bulletin board is basically suitable for two-dimensional materials, such as printed matter, photographs, drawings, and lightweight flat objects.

Although this is a limitation, it does allow for the display of a large variety of commercial, teacher-produced, and student-produced material. The challenge of the limitations of the bulletin board may produce many imaginative displays.

Before launching into the preparation of a bulletin board intended as a study display, you should have identified the specific instructional objective the display is designed to help students achieve. The bulletin board should have been chosen as the best technique after consideration of all the alternative approaches to the objective.

A comprehensive plan for preparing the bulletin board should then be developed, including the phases of (1) deciding on the purpose of the bulletin board, (2) collecting the needed content materials, (3) selecting the content for the bulletin board, (4) making the design plan, (5) assembling the required supplies, and (6) carrying out the construction.



Almost every modern vocational teaching facility will have some built-in bulletin board space. There is usually a horizontal rectangular area constructed of cork board of a neutral (and perhaps not very attractive) color, placed along one wall. Additional bulletin board space can be readily constructed if needed, and can be wall-mounted or free-standing.

You can make your own bulletin boards of composition board , veneered plywood, particle board, or perforated hardboard ("Pegboard"). They can be covered with felt to form special-purpose

feltboards, or covered with a unique loop-surfaced fabric to make hook and loop boards.

Pegboard is pressed hardboard perforated with ⅛" diameter holes spaced 1 inch apart, designed to be used with a great variety of special hardware that can be inserted in the holes. These can be used to hold all kinds of small objects, display shelves, and mounted materials. It makes a fine versatile display surface if attractively painted and arranged (don't leave it in its original brown color). It is particularly useful for displaying a combination of flat and three-dimensional materials.

Feltboards are panels over which is stretched cotton flannel cloth. Materials to be placed on the board are backed with a piece of garnet paper ("sandpaper"), and can be applied to the feltboard and removed easily. Thus, the feltboard is especially suited to display or teaching situations in which the material is to be changed or moved frequently.

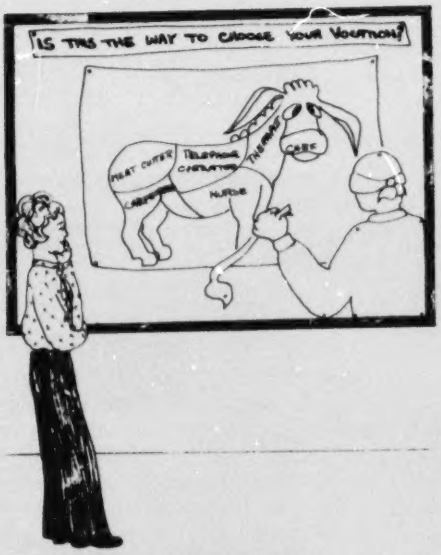
The hook and loop board is also a cloth covered board, but is able to support much heavier three-dimensional objects as well as pictures and other flat materials. The board fabric is made up of tiny loops, and objects to be placed on the board are backed with a piece of fabric made of tiny hooks. The two surfaces interlock to form a display medium of remarkable strength.

Bulletin Board Design

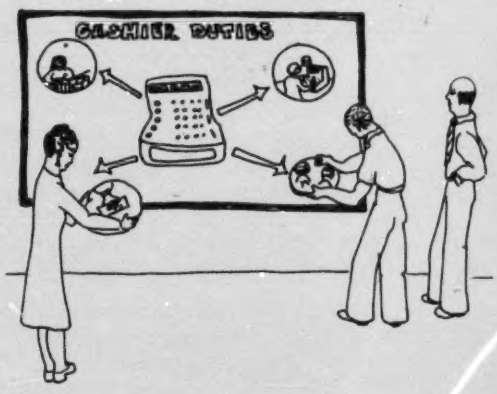
The subject of display design in general, and its application to classroom bulletin boards, is a large one. Only the fundamental principles can be outlined here. You can, however, continue to gain knowledge and expertise with each bulletin board that is prepared. In addition, you can learn about instructional display by doing further reading on the subject and by examining professionally made displays.

Strive for simplicity and unity of design.—The bulletin board should convey only **one** central idea or theme, and the idea should be clearly defined and expressed. If you have more than one idea, plan another display. The **design** of the bulletin board itself should be one of simplicity, direct in appeal, and uncluttered. It should not be loaded with facts, figures, and different shapes, or filled with copy. For example, don't put up a reprint of a long article. Students are not going to stand in front of a bulletin board for a long period of time in order to read lengthy material. The study materials selected should all be focused on the topic and should contribute to the instructional objective.

Use only a few simple shapes in any one bulletin board (e.g., rectangles, circles, inclined lines) and repeat the shapes for emphasis. Above all, the bulletin board should not have a cluttered, crammed, or messy appearance, but should impress by its neat and unified impact. A special symbol or appropriate shape may form the dominant design element of the bulletin board. For example, a display featuring drawings of the latest hair styles might be based on the S-curve. A bulletin board dealing with Ohm's law might be dominated by the symbol for the ohm.

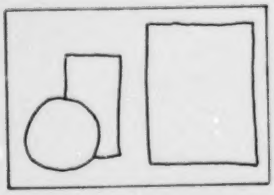


In order to entice students to look at the board, it is first necessary to attract their attention. The use of a dominating shape or symbol is one way of doing this. Catchy captions, captions that ask the viewer a question, or ones that relate to the student personally are very effective (e.g., "Do you qualify for any of these positions?"). The viewer should not have to search around for the main idea of the display; it should be made clear by a short and stimulating caption. Designing the display around a powerful center of interest can be very arresting. This may take the form of a large eye-catching central symbol, the use of some three-dimensional material, or contrasting colors.



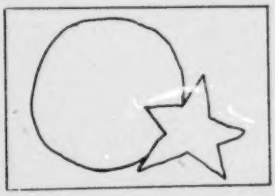
As the design of the bulletin board progresses, it is wise to keep in mind a few basic principles of balance. The easiest and most common means of achieving balance is through symmetrical arrangement of the material, with equal sizes and shapes on either side of the center. This can be deadly dull, however, so usually an informal balance will create a more dynamic and interesting effect. A few general principles of informal balance to keep in mind are:

- Two small shapes tend to balance a larger one.

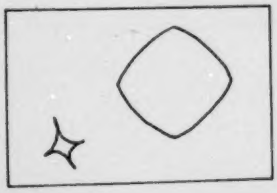


- A brightly colored small shape balances a larger neutral one.

- An interesting or unusual shape balances a larger ordinary one.



- A smaller shape away from the visual center tends to balance a larger one near the center.



Use color carefully.—Color is one of the fundamental elements in a successful bulletin board. The mood or effect of the display can be controlled by the colors selected and can evoke the feeling of dignity, cheerfulness, urgency, cleanliness, etc. Color in a bulletin board display may have these basic purposes.

- To focus attention on specific points in the display, or to organize the material into relationships. A display of a technical procedure, for example, might use colors to differentiate and emphasize the steps in the procedure.
- To present information accurately. Some information must be in color in order to get the message across. A display illustrating correct oxyacetylene welding flames must show the flame in color. A display designed to help students recognize destructive insects needs accurately colored pictures of insects if it is to be helpful.
- To attract student interest and hold attention. Bold and intense colors are almost irresistible attention-getters, though they must be chosen carefully so as not to be offensive. Soft, subtle colors are pleasing to the eye and are conducive to relaxed enjoyment of the display. The teacher who is unsure of his or her ability to choose colors to good effect should look at professionally prepared displays for ideas, and might also consult books on the subject.

Use good lettering.—No matter how well thought out and prepared the bulletin board might be, awkward, unskilled, or amateurish lettering will mar it badly. There are a number of relatively easy and inexpensive methods for producing handsomely lettered captions, any one of which can transform a graceless bulletin board into an arresting study display.

Among the **least attractive** types of display lettering are letters cut from construction paper and attached limply to the board by a thumbtack through their middles, and handwriting-style captions made with a crayon, felt-tip pen, or thick pencil.

The following types of letters and lettering devices require very little skill and may be used after just a little practice.

Simple hand-made letters:

- Simple letters cut out of illustration board with a sharp office knife
- Tape with adhesive backing, cut to form angular letters
- Letters and words cut from magazines or calendars
- Textured letters, made by applying glue to the background, then sprinkling on glitter or colored sand

Commercially prepared letters:

- Ready-cut letters made of plastic, cardboard, cork, plaster and other materials. These are available in a great range of sizes and styles. The initial expense is justified by the fact that they are durable and reusable.

Lettering aids and devices:

- Stencils of all sizes, to be used with pen, stencil brush, or spray paint
- Sheet of presstype (that can be just rubbed on)
- Rubber stamps of individual letters
- Embossed plastic strips for small captions or labels
- Mechanical lettering sets with templates
- Typewriter with giant "convention" or "executive" type for short captions

Bulletin Board Construction

You should become familiar with some of the construction techniques that can make a bulletin board more versatile and at the same time more attractive. None of these techniques requires a great deal of skill, but some do call for special (but easily available) supplies. If you are unfamiliar with the great many creative display materials now available, you may wish to obtain this information by visiting a local art supply house.

Background materials are very important to the bulletin board to give it color and texture, and to cover a soiled or marred surface. Colored construction paper is often used for backgrounds. However, this is not usually a good choice because it fades quickly and comes in small sheets that give the display a patchy appearance. The following list gives an idea of some background materials that may be used:

- Colored burlap or other loosely woven cloth
- Grass cloth or straw cloth
- Old maps
- Old blueprints
- Corrugated cardboard
- Wallpaper
- Contact paper

Many of these are free or inexpensive and are available from paint stores, art supply houses, or "do-it-yourself" stores. Background materials may be applied by adhesives, pins, or staple guns.

The job of attaching materials to the display surface is made easy by a wide variety of devices. Whatever device is used, it should not detract from the appearance of the display, and should not mutilate the bulletin board surface. The following list describes some of the devices that may be used to attach two-dimensional and lightweight three-dimensional materials.

- straight or common pins for general use
- thumbtacks for heavier objects (but the large head often detracts from appearance)
- cellulose tape, coated with adhesive on both sides (double-sided tape)
- staples, used in a light-duty staple gun
- stick-wax or bulletin board plastic, a small piece of which will hold fairly heavy materials

Almost all instructional materials will appear neater and last longer if they are mounted in some way before being placed on the bulletin board. Even the simple newspaper clipping will attract notice if it is mounted neatly on a large piece of colored show-card stock. Mounted photographs will lie flat and have less annoying surface glare, drawings won't sag, and printed copy will be free of tired-looking wrinkles.

Temporary and easy mounting can be done with rubber cement, liquid paste, white glue, or mucilage. Heavy objects can be mounted with contact cement, available at any hardware store. For more permanent mounting of flat materials, the use of rubber cement or dry mounting tissue is best. Dry mounting tissue is available at art supply stores or photo shops and is inexpensive. An ordinary hand iron is needed to heat the tissue and keep the material flat as it adheres. Simple directions for their use are on the packages of rubber cement and dry mounting tissue.

The time and effort of learning about the materials and techniques used for contemporary bulletin boards will soon be repaid by the increase in effectiveness and student attention they produce.

For more information about the techniques of preparing bulletin boards, including the use of color, you may wish to read Wittich and Schuller, *Instructional Technology: Its Nature and Use*, pp. 196–228.

For ideas on the design of striking bulletin boards and illustrations depicting basic design principles, you may wish to read Lockridge, *Educational Displays and Exhibits*, pp. 1–36.

Select a student performance objective in your occupational specialty and a single theme or idea related to that objective that is suitable for illustrating with a bulletin board display.

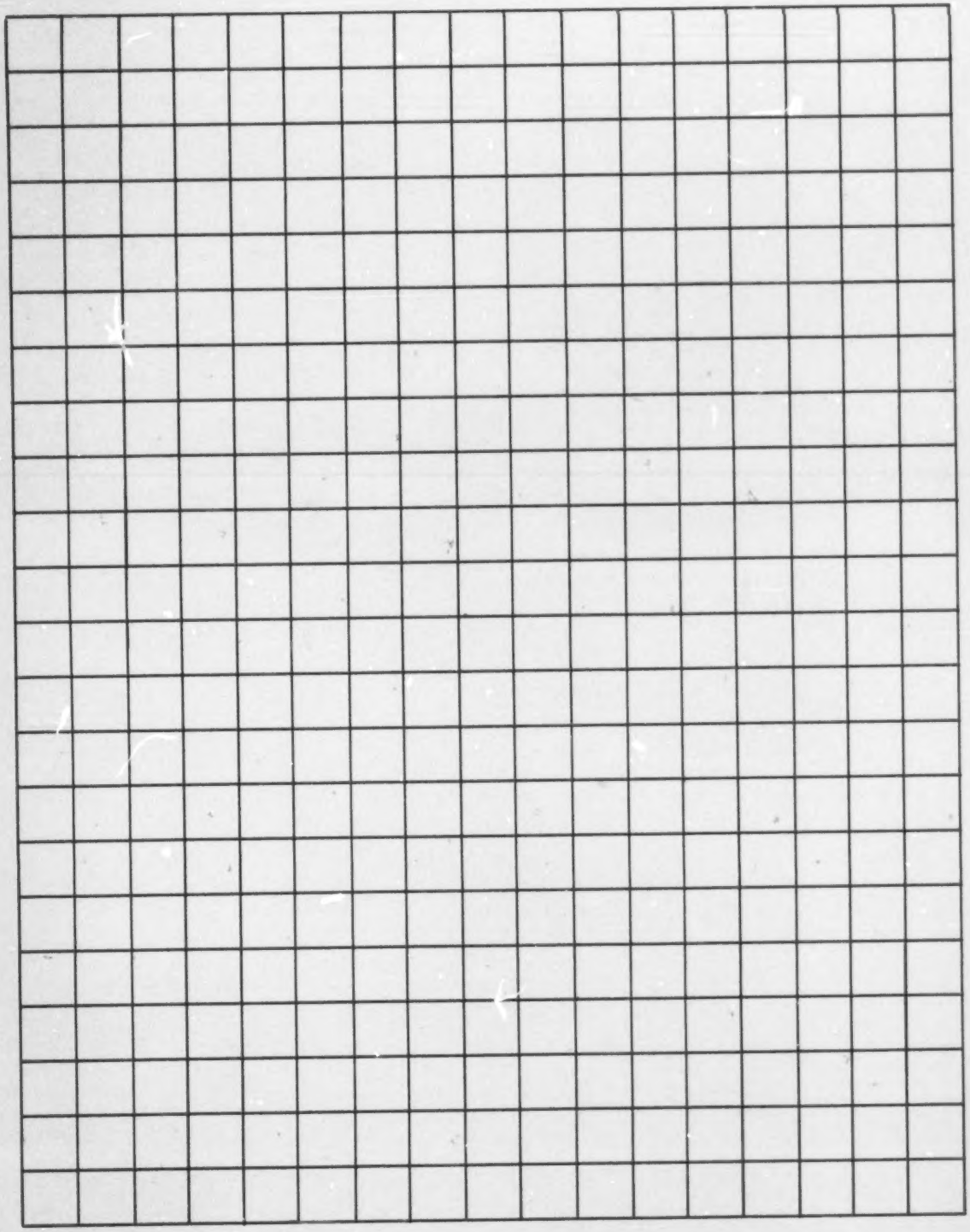
Make a complete plan of your proposed bulletin board display. You may want to use graph paper to help keep the sketch to scale. On the plan, indicate the overall design, the materials of construction, basic measurements, colors, and major lettering.

Carry out your plan by actually preparing the bulletin board in an area designated by your resource person.

You may wish to ask a peer with experience in preparing bulletin boards (perhaps one who has completed this module) to critique your bulletin board, using a copy of the Bulletin Board Checklist, pp. 25–26. Discuss any suggestions, and make any necessary changes.

After you have prepared your bulletin board, use the Bulletin Board Checklist, pp. 27–28, to evaluate your work.

NOTES



BULLETIN BOARD CHECKLIST

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

LEVEL OF PERFORMANCE

	N/A	No	Partial	Full
1. The theme and ideas communicated were directly related to a student performance objective	☐	☐	☐	☐
2. The theme, or main idea, was clearly and quickly communicated	☐	☐	☐	☐
3. There was just one unified theme for the bulletin board	☐	☐	☐	☐
4. The display attracted and held the attention of the viewer	☐	☐	☐	☐
5. The display served one or more of the following purposes: motivation, information, or summary	☐	☐	☐	☐
6. The content materials chosen were appropriate to the purpose and the viewers	☐	☐	☐	☐
7. The display permitted active response by viewers (e.g., questioning, discussing, answering, touching, etc.)	☐	☐	☐	☐
8. The design contained elements of originality and creativity	☐	☐	☐	☐
9. The lettering was:				
a. legible	☐	☐	☐	☐
b. attractive	☐	☐	☐	☐
c. of good quality	☐	☐	☐	☐
10. The arrangement of items was well balanced and unified	☐	☐	☐	☐
11. The colors were appropriately chosen for:				
a. creating the mood	☐	☐	☐	☐
b. attracting attention	☐	☐	☐	☐
c. providing background	☐	☐	☐	☐
12. The materials of construction were:				
a. suitable for their purpose	☐	☐	☐	☐
b. in harmony with the overall design	☐	☐	☐	☐

LEVEL OF PERFORMANCE: All items must receive FULL, or N/A responses. If any item receives a NO, or PARTIAL response, review the material in the information sheet, Planning and Preparing Bulletin Boards, pp. 19–22, and the reading in the previous learning experience, pp. 6–10, revise your bulletin board accordingly, or check with your resource person if necessary.

BULLETIN BOARD CHECKLIST

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

LEVEL OF PERFORMANCE

	N/A	No	Partial	Full
1. The theme and ideas communicated were directly related to a student performance objective	☐	☐	☐	☐
2. The theme, or main idea, was clearly and quickly communicated	☐	☐	☐	☐
3. There was just one unified theme for the bulletin board	☐	☐	☐	☐
4. The display attracted and held the attention of the viewer	☐	☐	☐	☐
5. The display served one or more of the following purposes: motivation, information, or summary	☐	☐	☐	☐
6. The content materials chosen were appropriate to the purpose and the viewers	☐	☐	☐	☐
7. The display permitted active response by viewers (e.g., questioning, discussing, answering, touching, etc.)	☐	☐	☐	☐
8. The design contained elements of originality and creativity	☐	☐	☐	☐
9. The lettering was:				
a. legible	☐	☐	☐	☐
b. attractive	☐	☐	☐	☐
c. of good quality	☐	☐	☐	☐
10. The arrangement of items was well balanced and unified	☐	☐	☐	☐
11. The colors were appropriately chosen for:				
a. creating the mood	☐	☐	☐	☐
b. attracting attention	☐	☐	☐	☐
c. providing background	☐	☐	☐	☐
12. The materials of construction were:				
a. suitable for their purpose	☐	☐	☐	☐
b. in harmony with the overall design	☐	☐	☐	☐

LEVEL OF PERFORMANCE: All items must receive FULL, or N/A responses. If any item receives a NO, or PARTIAL response, review the material in the information sheet, Planning and Preparing Bulletin Boards, pp. 19–22, and the reading in the previous learning experience, pp. 6–10, revise your bulletin board accordingly, or check with your resource person if necessary.

Learning Experience III

OVERVIEW

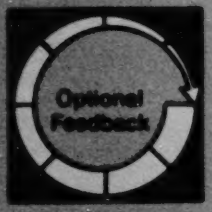
After completing the required reading, prepare an exhibit relating to a student performance objective in your occupational specialty.

You will be reading the information sheet, Planning and Preparing Exhibits, pp. 30–32.

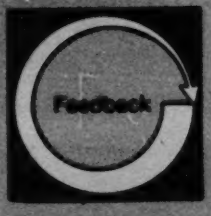
You will be selecting a student performance objective in your occupational specialty and selecting a single theme or idea related to that objective that is suitable for illustrating with an exhibit.

You will be developing a complete plan for your instructional exhibit.

You will be carrying out your plan for the exhibit by constructing and preparing a full-size exhibit or a scale model of the exhibit.



You may wish to ask a peer with experience in preparing exhibits to critique your exhibit, using the Exhibit Checklist, pp. 33–34.



You will be evaluating your competency in preparing an instructional exhibit, using the Exhibit Checklist, pp. 35–36.

For information about the special considerations involved in planning, designing, and constructing instructional exhibits, read the following information sheet:

PLANNING AND PREPARING EXHIBITS

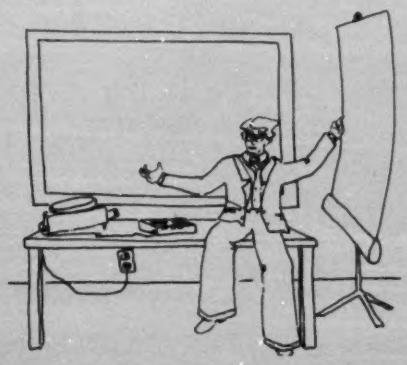
Most students prefer to see the real thing rather than to read about it, or see a picture of it, or listen to someone talk about it. Words are merely symbols of real things, and pictures are just two-dimensional images of three-dimensional objects.

A **study exhibit** uses real objects arranged in a display setting to visually communicate ideas as well as show the objects themselves. An exhibit uses three-dimensional materials primarily to teach, but it may also include other visual materials such as pictures, drawings, graphs, and text to help explain the ideas.

It should be remembered that a study exhibit is used in the classroom to help achieve **instructional objectives** through motivation, presentation of information, or summary and evaluation. This is in contrast to school or community exhibits designed to sell, promote, or inform parents and citizens.

Many of the instructional characteristics and design problems of exhibits are similar to those of bulletin boards. The considerations of organization of space, use of color, lettering and captions, and mounting of materials are much the same, though the use of real objects adds a further dimension to the problem.

Because the exhibit may also incorporate other display media such as the bulletin board, the projected slide, or the printed page, it may be considered as a culmination of the display form. As compared to other display techniques, the exhibit makes much more student involvement possible. Students can touch surfaces, handle objects, smell materials, make parts move, walk around the objects, or see things operate. They can get more accurate perceptions of size, color, texture, and weight than they can from pictures or descriptions. Sometimes, by making collections of specimens or using scale models, an exhibit is an improvement on reality itself.



Because vocational training usually deals with the concrete rather than the abstract, exhibits are especially appropriate instructional techniques for this area. Exhibits of student projects or student laboratory work are frequent and popular themes. Such exhibits are certainly valuable as motivation and reinforcement, but they should not be the only kinds of exhibits used in the classroom. Some examples of possible vocational education exhibits follow:

- collections, e.g., varieties of furniture lumber, leaves of fruit trees, harmful insects, metal fasteners
- specimens, e.g., rocks, termite infested lumber, animals, mechanisms
- professional work, e.g., examples of high quality work in such fields as graphic arts, machine shop, needle trades, dental technician
- technical processes, e.g., display of tools, materials, and results of new processes, along with explanation and illustration
- technical materials and supplies, e.g., displays of new materials, identification of common materials used in the vocation

As in any educational display, the classroom exhibit should be based on a specific instructional objective. It is wise to begin by writing down the objective which the exhibit is intended to help achieve, and then refer back to the objective as planning progresses to be sure the goal is kept clearly in mind. As in other forms of display, the exhibit can be an excellent vehicle for involving students actively in the teaching/learning process. They can help plan, gather materials, organize the ideas, and assist in the construction of the exhibit.

Many vocational classrooms and laboratories do not have adequate exhibit facilities, but these can be improved or constructed readily enough. Library or study tables make good exhibit spaces, especially when backed by a bulletin board or

chalkboard to provide a place for captions and two-dimensional materials.

Simple shelving, either free-standing or attached to a wall, makes convenient exhibit areas. Some schools have glass cases or exhibit stands available. Anyone who can work with basic tools can construct simple wood frames on which exhibit panels can be attached. Even wood crates or boxes can form areas for effective exhibits. A walk through a modern department store or boutique will furnish many ideas for clever exhibit devices.

Design of Exhibits

A design problem that can mar teacher-prepared exhibits is that of clutter. Too many objects, some perhaps unrelated to the topic, scattered around the exhibit can destroy the entire effect and create confusion in the viewer. Two or three well-related objects can have a far greater dramatic impact than a miscellaneous array of things. Patterns and setting can make an important contribution to organizing the objects so as to communicate the ideas. You can show objects at different heights to focus on the important items. You can place objects in shadow boxes; focus a spotlight on one; place them on a cloth background; place them on a stand; hang them from a rope.

Lettering and Captions

The need for good lettering is at least as important for the exhibit as for the bulletin board, and the same solutions can be used (see pp. 21–22). Three-dimensional letters (such as large cardboard or plaster ones) are especially appropriate for exhibits of three-dimensional materials. The lettering should be large enough to be clearly legible from typical viewing distances. The captions themselves must be placed so that there can be no misunderstanding about which caption refers to which object.

Lighting the Exhibit

Good lighting is more important to an effective exhibit than it is for a classroom bulletin board. For the latter, ordinary room lighting may be perfectly adequate, but for an exhibit something a little more dramatic is called for. Correct lighting not only helps to focus attention but brings out the effects of color and texture that have been created. Strong daylight tends to wash out contrast and colors and thus weakens the effect of the exhibit.

Lighting for classroom instructional exhibits need not be either elaborate or expensive. Simple spotlight bulbs suitable for standard sockets are available from the local hardware store, and come in several colors in addition to clear. Softer floodlight bulbs are also available. These bulbs may be used in inexpensive spring-clamp sockets to hold them in the desired position. A fluorescent fixture, shaded from direct view, can be used to provide overall lighting for display tables and cases.

Planning the Exhibit

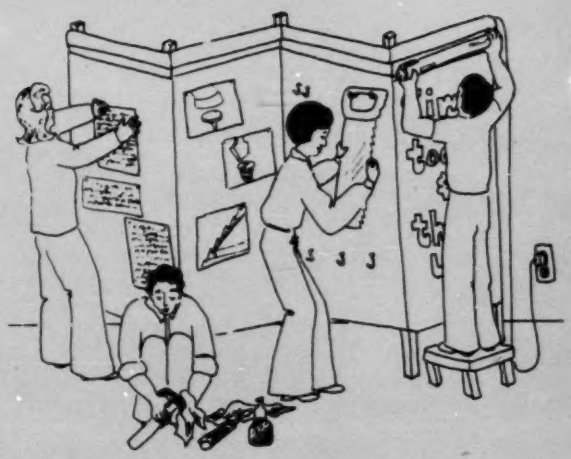
It is vital that you prepare a plan before constructing the exhibit. Without a plan much time and effort can be wasted, and the result may be poor. Not only should the instructional objective be written out, but the whole plan should be worked out on paper. Again, ruled graph paper helps to keep the plan in scale. On the plan drawing, show the following features:

- the design to be followed
- construction of the exhibit devices
- background materials to be used
- main measurements
- lettering and captions
- color scheme
- lighting devices to be used
- arrangement and placement of the objects

Carrying Out the Plans

If the plans are well made, the task of actually preparing the exhibit should proceed efficiently and successfully. Students can follow the plan as they assist in preparing the materials and arranging the objects within the exhibits. Students can apply the background materials, clean or refinish the objects, mount materials, put up the lettered captions, and install the lighting.

Even a relatively simple study exhibit can take a considerable amount of time and effort to prepare, but the results can be well worth it. For certain units of instruction, the exhibit may help students achieve their educational goals as no other technique can, and at the same time provide an attractive and enriched environment in which to learn.



Select a student performance objective in your occupational specialty and select a single theme or idea related to that performance objective that is suitable for illustrating with an exhibit.

Make a complete plan of your proposed exhibit. You may want to use graph paper to keep the sketch to scale. On the plan, indicate the construction of the exhibit stand (if necessary), the materials of construction, the overall design with basic measurements, the objects you will display, the colors, and major lettering.

Carry out your plan for the exhibit. Either construct the exhibit in an area designated by your resource person, or make a scale model of the exhibit using suitable scale materials.

You may wish to ask a peer with experience in preparing exhibits (perhaps one who has completed this module) to critique your exhibit, using a copy of the Exhibit Checklist, pp. 33–34. Discuss any suggestions, and make any necessary changes.

After you have prepared your exhibit, use the Exhibit Checklist, pp. 35–36, to evaluate your work.

EXHIBIT CHECKLIST

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

	LEVEL OF PERFORMANCE			
	N/A	No	Partial	Full
1. The exhibit communicated ideas and information directly related to an instructional objective	☐	☐	☐	☐
2. The purpose of the exhibit could be readily and clearly perceived by the viewers	☐	☐	☐	☐
3. The objects chosen for exhibit were well related and unified in concept	☐	☐	☐	☐
4. The exhibit attracted and held the attention of the viewer	☐	☐	☐	☐
5. The exhibit served one or more of the following purposes: motivation, information, or summary	☐	☐	☐	☐
6. The viewers had an opportunity to actively respond to the exhibit by such things as feeling, handling, looking from various angles, operating moving parts, etc	☐	☐	☐	☐
7. Colors were selected to:				
a. attract attention	☐	☐	☐	☐
b. provide appropriate mood and setting	☐	☐	☐	☐
c. provide necessary information or organization of ideas	☐	☐	☐	☐
8. The lettering:				
a. showed good workmanship	☐	☐	☐	☐
b. was readable from a typical viewing distance	☐	☐	☐	☐
9. The lighting helped to:				
a. clarify the ideas	☐	☐	☐	☐
b. dramatize the characteristics of the objects	☐	☐	☐	☐
10. The workmanship and finish of the exhibit stand were satisfactory	☐	☐	☐	☐
11. There were elements of originality and creativity in the overall design of the exhibit	☐	☐	☐	☐

LEVEL OF PERFORMANCE: All items must receive FULL, or N/A responses. If any item receives a NO, or PARTIAL response, review the material in the information sheet, Planning and Preparing Exhibits, pp. 30–32, and the readings in previous learning experiences, pp. 6–10, and 19–22, revise your exhibit accordingly, or check with your resource person if necessary.

EXHIBIT CHECKLIST

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

	LEVEL OF PERFORMANCE			
	N/A	No	Partial	Full
1. The exhibit communicated ideas and information directly related to an instructional objective	☐	☐	☐	☐
2. The purpose of the exhibit could be readily and clearly perceived by the viewers	☐	☐	☐	☐
3. The objects chosen for exhibit were well related and unified in concept	☐	☐	☐	☐
4. The exhibit attracted and held the attention of the viewer	☐	☐	☐	☐
5. The exhibit served one or more of the following purposes: motivation, information, or summary	☐	☐	☐	☐
6. The viewers had an opportunity to actively respond to the exhibit by such things as feeling, handling, looking from various angles, operating moving parts, etc	☐	☐	☐	☐
7. Colors were selected to:				
a. attract attention	☐	☐	☐	☐
b. provide appropriate mood and setting	☐	☐	☐	☐
c. provide necessary information or organization of ideas	☐	☐	☐	☐
8. The lettering:				
a. showed good workmanship	☐	☐	☐	☐
b. was readable from a typical viewing distance	☐	☐	☐	☐
9. The lighting helped to:				
a. clarify the ideas	☐	☐	☐	☐
b. dramatize the characteristics of the objects	☐	☐	☐	☐
10. The workmanship and finish of the exhibit stand were satisfactory	☐	☐	☐	☐
11. There were elements of originality and creativity in the overall design of the exhibit	☐	☐	☐	☐

LEVEL OF PERFORMANCE: All items must receive FULL, or N/A responses. If any item receives a NO, or PARTIAL response, review the material in the information sheet, Planning and Preparing Exhibits, pp. 30–32, and the readings in previous learning experiences, pp. 6–10, and 19–22, revise your exhibit accordingly, or check with your resource person if necessary.

Learning Experience IV

FINAL EXPERIENCE

In an **actual school situation***, prepare bulletin boards and exhibits.

As you plan your units of instruction, decide when preparing bulletin boards and exhibits could be used effectively to aid in meeting the unit objectives. Based on those decisions, prepare at least one bulletin board and one exhibit. This will include—

- selecting, modifying, or developing a unit plan(s) which includes the preparation of a bulletin board and an exhibit
- identifying a central theme, concept, or process suitable for the bulletin board and the exhibit (this theme may or may not be the same for both displays)
- involving students in the planning and/or construction phases of the bulletin board and the exhibit
- preparing complete plans for the bulletin board and the exhibit, indicating design, materials, construction, lettering, colors, etc., you plan to use
- carrying out the plans by preparing the bulletin board and the exhibit

NOTE: As you complete each of the above activities, document your actions (in writing, on tape, through a log) for assessment purposes.

Your resource person may want you to submit your written unit plan(s) to him/her for evaluation before you present your unit. It may be helpful for him/her to use the TPAF from Module B–3, *Develop a Unit of Instruction*, to guide his/her evaluation.

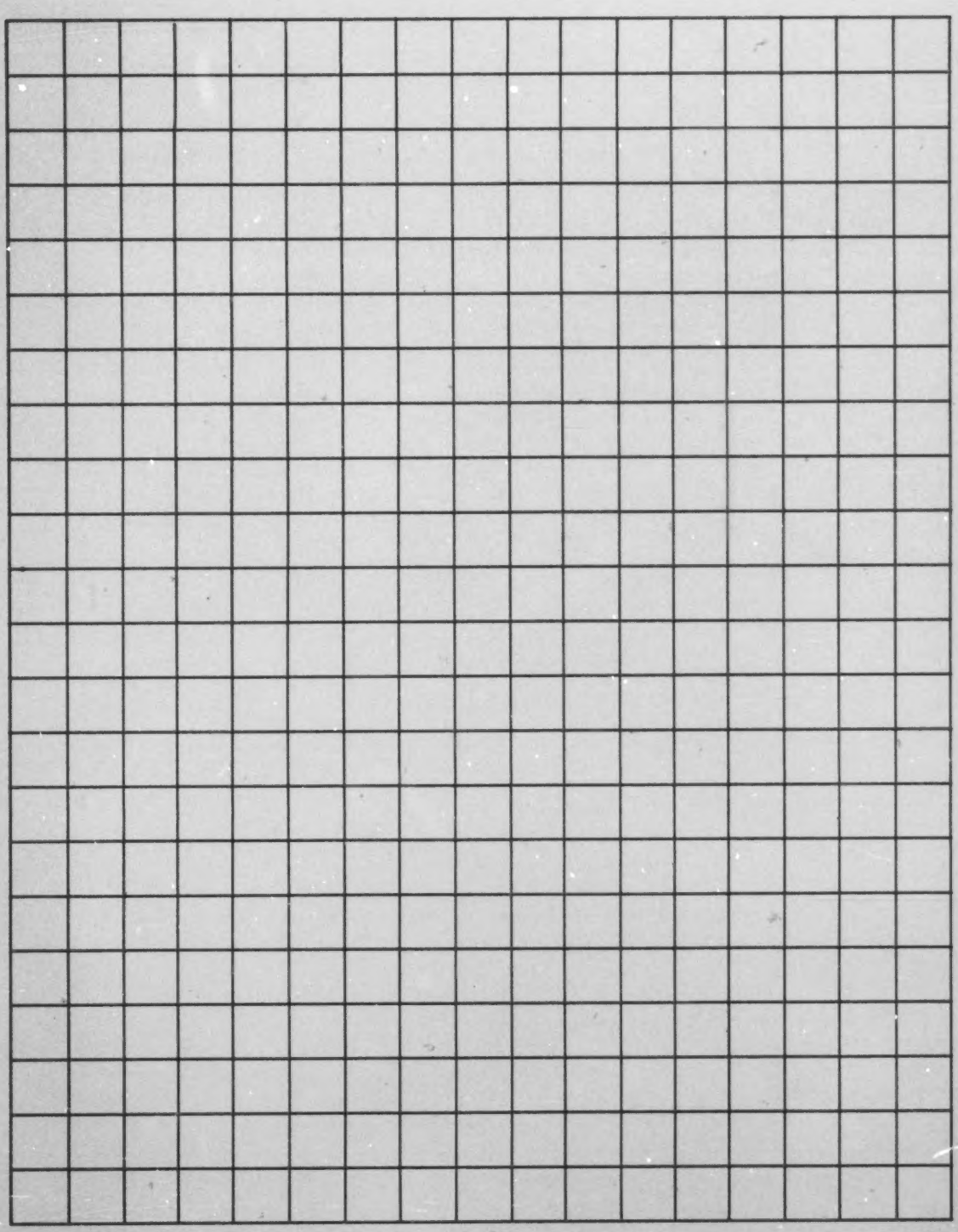
Arrange in advance to have your resource person review your documentation and observe the lesson(s) to which the bulletin board and the exhibit are related.

Your total competency will be assessed by your resource person, using the Teacher Performance Assessment Form, pp. 39–41.

Based upon the criteria specified in this assessment instrument, your resource person will determine whether you are competent in preparing bulletin boards and exhibits.

*For a definition of "actual situation," see the inside back cover.

NOTES



TEACHER PERFORMANCE ASSESSMENT FORM

Prepare Bulletin Boards and Exhibits (C–21)

Name _____

Date _____

Resource Person _____

Directions: Indicate the level of the teacher's accomplishment by placing an X in the appropriate box under the LEVEL OF PERFORMANCE heading. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

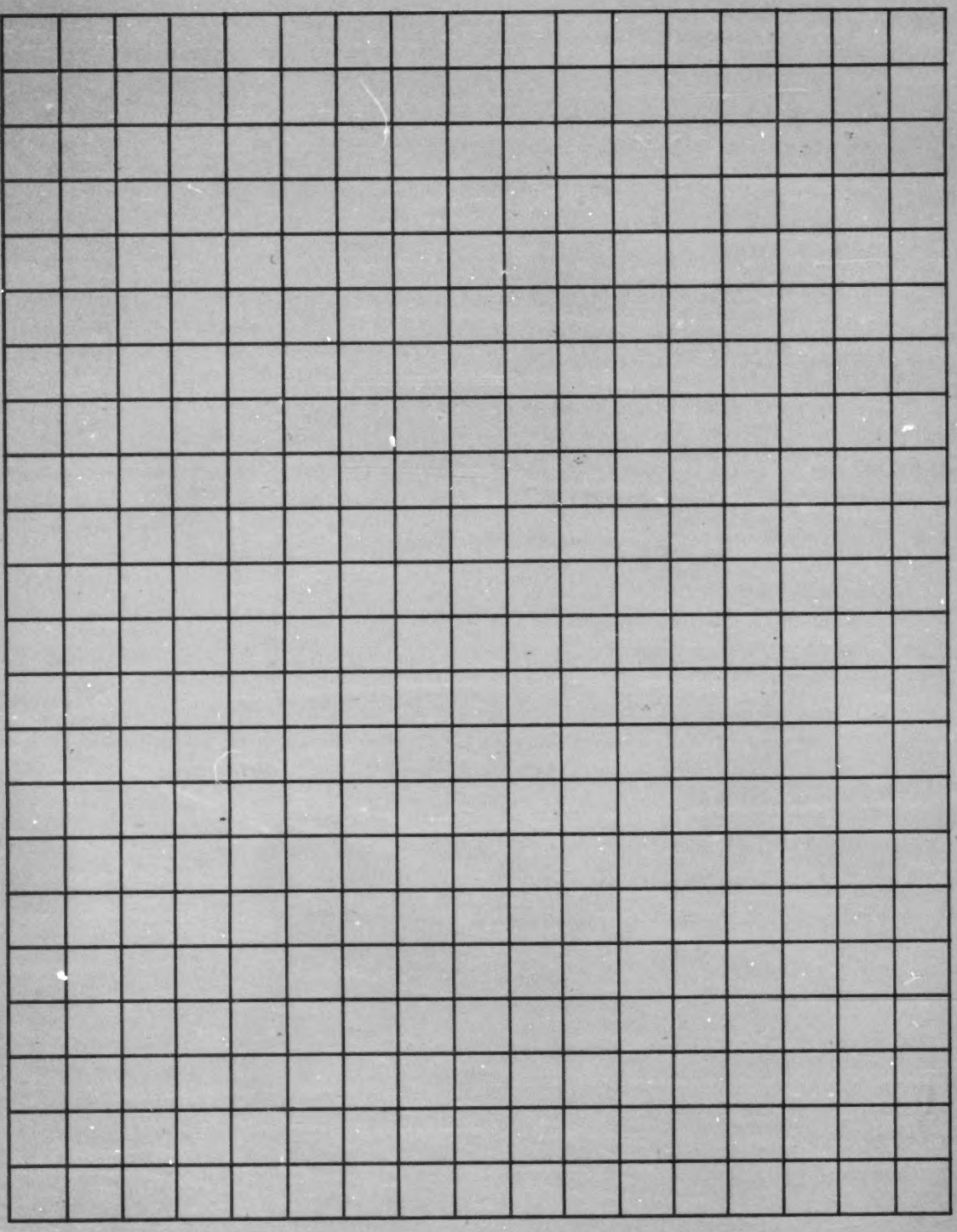
	LEVEL OF PERFORMANCE					
	N/A	None	Poor	Fair	Good	Excellent
Bulletin Board						
1. The theme and ideas communicated were directly related to a unit objective	☐	☐	☐	☐	☐	☐
2. The theme, or main idea, was clearly and quickly communicated	☐	☐	☐	☐	☐	☐
3. There was just one unified theme for the bulletin board	☐	☐	☐	☐	☐	☐
4. The display attracted and held the attention of the viewer	☐	☐	☐	☐	☐	☐
5. The display served one or more of the following purposes: motivation, information, or summary	☐	☐	☐	☐	☐	☐
6. The content materials chosen were appropriate to the purpose and the viewer	☐	☐	☐	☐	☐	☐
7. The display permitted active response by viewers (e.g., questioning, discussing, answering, touching, etc.)	☐	☐	☐	☐	☐	☐
8. The design contained elements of originality and creativity	☐	☐	☐	☐	☐	☐
9. The lettering was:						
a. legible	☐	☐	☐	☐	☐	☐
b. attractive	☐	☐	☐	☐	☐	☐
c. of good quality	☐	☐	☐	☐	☐	☐
10. The arrangement of items was well-balanced and unified	☐	☐	☐	☐	☐	☐
11. The colors were appropriately chosen for:						
a. creating the mood	☐	☐	☐	☐	☐	☐
b. attracting attention	☐	☐	☐	☐	☐	☐
c. providing background	☐	☐	☐	☐	☐	☐

	N/A	None	Poor	Fair	Good	Excellent
12. The materials of construction were:						
a. suitable for their purpose	☐	☐	☐	☐	☐	☐
b. in harmony with the overall design	☐	☐	☐	☐	☐	☐
13. Students were involved in planning and/or preparing the display	☐	☐	☐	☐	☐	☐
14. Students were stimulated to discuss the display with each other or with the teacher	☐	☐	☐	☐	☐	☐
Exhibit						
15. The exhibit communicated ideas and information directly related to a unit objective	☐	☐	☐	☐	☐	☐
16. The purpose of the exhibit could be readily and clearly perceived by the viewers	☐	☐	☐	☐	☐	☐
17. The objects chosen for exhibit were well related and unified in concept	☐	☐	☐	☐	☐	☐
18. The exhibit attracted and held the attention of the viewer	☐	☐	☐	☐	☐	☐
19. The exhibit served one or more of the following purposes: motivation, information, or summary	☐	☐	☐	☐	☐	☐
20. The viewers had an opportunity to actively respond to the exhibit by such things as feeling, handling, looking from various angles, operating moving parts, etc	☐	☐	☐	☐	☐	☐
21. Colors were selected to:						
a. attract attention	☐	☐	☐	☐	☐	☐
b. provide appropriate mood and setting	☐	☐	☐	☐	☐	☐
c. provide necessary information or organization of ideas	☐	☐	☐	☐	☐	☐
22. The lettering:						
a. showed good workmanship	☐	☐	☐	☐	☐	☐
b. was readable from a typical viewing distance	☐	☐	☐	☐	☐	☐

	N/A	None	Poor	Fair	Good	Excellent
23. The lighting helped to: a. clarify the ideas	☐	☐	☐	☐	☐	☐
b. dramatize the characteristics of the objects	☐	☐	☐	☐	☐	☐
24. The workmanship and finish of the exhibit stand were satisfactory	☐	☐	☐	☐	☐	☐
25. There were elements of originality and creativity in the overall design of the exhibit	☐	☐	☐	☐	☐	☐
26. Students were involved in planning, gathering materials, and/or constructing the exhibit	☐	☐	☐	☐	☐	☐
27. Students were stimulated to discuss the exhibit with each other or with the teacher	☐	☐	☐	☐	☐	☐

LEVEL OF PERFORMANCE: All items must receive N/A, GOOD, or EXCELLENT responses. If any item receives a NONE, POOR, or FAIR response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

NOTES



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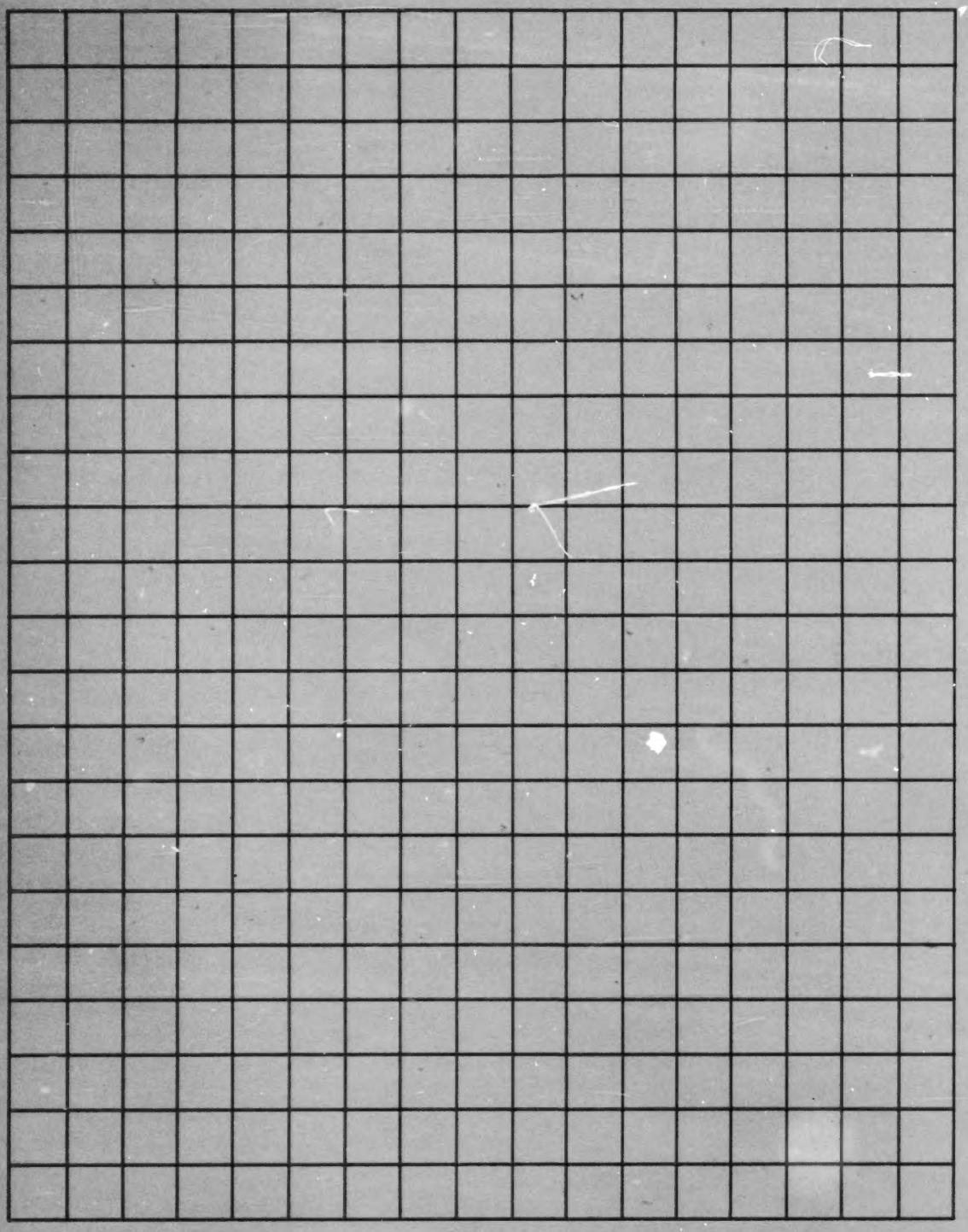

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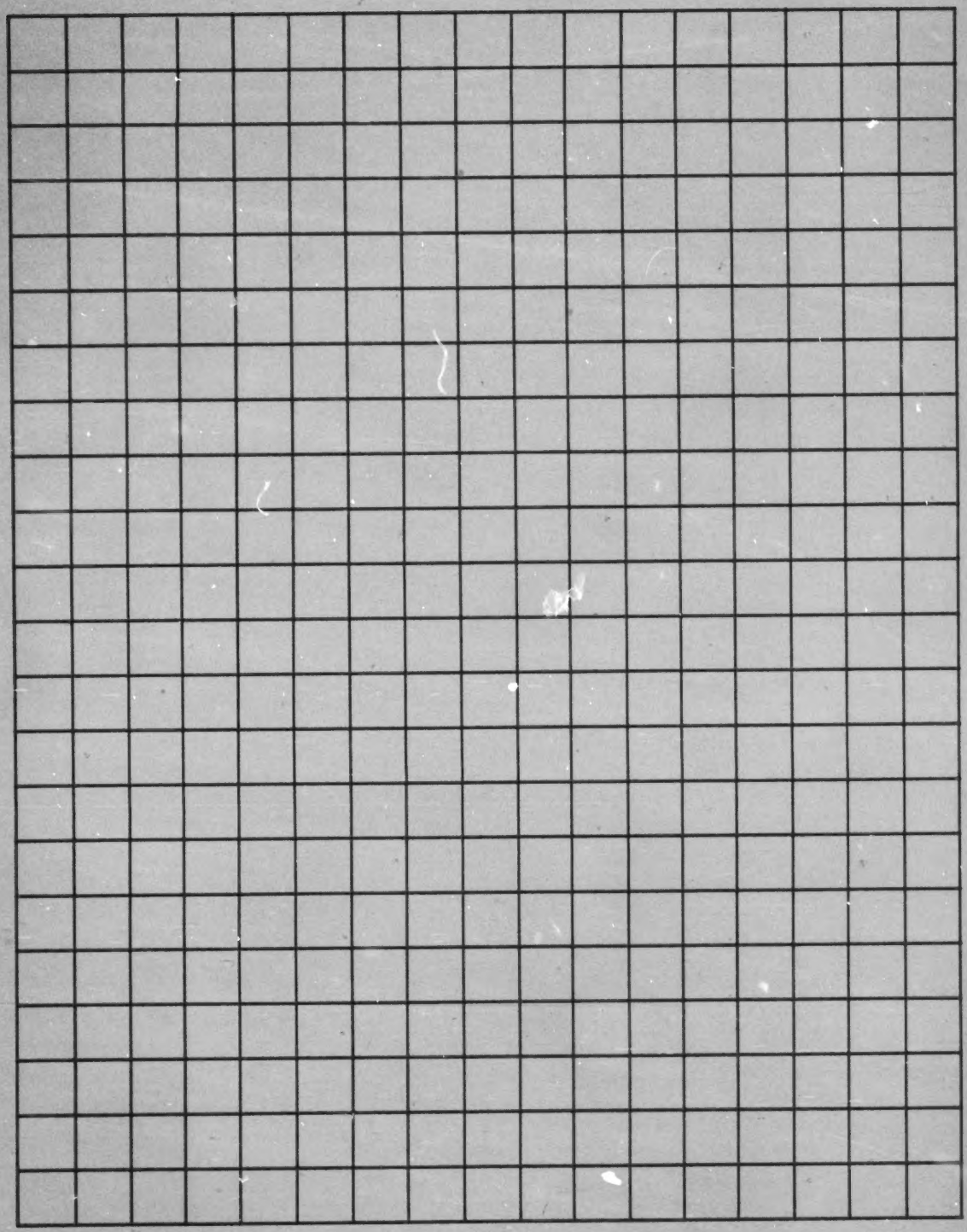

ABOUT USING THE CENTER'S PBTE MODULES

Organization

Each module is designed to help you gain competency in a particular skill area considered important to teaching success. A module is made up of a series of learning experiences, some providing background information, some providing practice experiences, and others combining these two functions. Completing these experiences should **enable** you to achieve the **terminal** objective in the final learning experience. The final experience in each module always requires you to demonstrate the skill in an actual school situation when you are an intern, a student teacher, or an inservice teacher.

Procedures

Modules are designed to allow you to individualize your teacher education program. You need to take only those modules covering skills which you do not already possess. Similarly, you need not complete any learning experience within a module if you already have the skill needed to complete it. Therefore, before taking any module, you should carefully review (1) the Introduction, (2) the Objectives listed on p. 4, (3) the Overviews preceding each learning experience, and (4) the Final Experience. After comparing your present needs and competencies with the information you have read in these sections, you should be ready to make one of the following decisions:

- that you do not have the competencies indicated, and should complete the entire module
- that you are competent in one or more of the enabling objectives leading to the final learning experience, and thus can omit that (those) learning experience(s)
- that you are already competent in this area, and ready to complete the final learning experience in order to "test out"
- that the module is inappropriate to your needs at this time

When you are ready to take the final learning experience and have access to an actual school situation, make the necessary arrangements with your resource person. If you do not complete the final experience successfully, meet with your resource person and arrange (1) to repeat the experience, or (2) complete (or review) previous sections of the module or other related activities suggested by your resource person before attempting to repeat the final experience.

Options for recycling are also available in each of the learning experiences preceding the final experience. Any time you do not meet the minimum level of performance required to meet an objective, you and your resource person may meet to select activities to help you reach competency. This could involve (1) completing parts of the module previously skipped; (2) repeating activities; (3) reading supplementary resources or completing additional activities suggested by the resource person; (4) designing your own learning experience; or (5) completing some other activity suggested by you or your resource person.

Terminology

Actual School Situation . . . refers to a situation in which you are actually working with, and responsible for, secondary or post-secondary vocational students in a real school. An intern, a student teacher, or an inservice teacher would be functioning in an actual school situation. If you do **not** have access to an actual school situation when you are taking the module, you can complete the module **up to** the final learning experience. You would then do the final learning experience later; i.e., when you have access to an actual school situation.

Alternate Activity or Feedback . . . refers to an item or feedback device which may **substitute** for required items which, due to special circumstances, you are unable to complete.

Occupational Specialty . . . refers to a specific area of preparation within a vocational service area (e.g., the service area Trade and Industrial Education includes occupational specialties such as automobile mechanics, welding, and electricity).

Optional Activity or Feedback . . . refers to an item which is not required, but which is designed to **supplement** and enrich the required items in a learning experience.

Resource Person . . . refers to the person in charge of your educational program; the professor, instructor, administrator, supervisor, or cooperating/supervising/classroom teacher who is guiding you in taking this module.

Student . . . refers to the person who is enrolled and receiving instruction in a secondary or post-secondary educational institution.

Vocational Service Area . . . refers to a major vocational field: agricultural education, business and office education, distributive education, health occupations education, home economics education, industrial arts education, technical education, or trade and industrial education.

You or the Teacher . . . refers to the person who is taking the module.

Levels of Performance for Final Assessment

N/A . . . The criterion was not met because it was **not applicable** to the situation.
None . . . **No attempt** was made to meet the criterion, although it was relevent.
Poor . . . The teacher is unable to perform this skill or has only **very limited ability** to perform it.
Fair . . . The teacher is unable to perform this skill in an acceptable manner, but has **some ability** to perform it.
Good . . . The teacher is able to perform this skill in an **effective** manner.
Excellent . . . The teacher is able to perform this skill in a **very effective** manner.

Titles of The Center's Performance-Based Teacher Education Modules

A–1 Prepare for a Community Survey
A–2 Conduct a Community Survey
A–3 Report the Findings of a Community Survey
A–4 Organize an Occupational Advisory Committee
A–5 Maintain an Occupational Advisory Committee
A–6 Develop Program Goals and Objectives
A–7 Conduct an Occupational Analysis
A–8 Develop a Course of Study
A–9 Develop Long-Range Program Plans
A–10 Conduct a Student Follow-Up Study
A–11 Evaluate Your Vocational Program

Category B: Instructional Planning

B–1 Determine Needs and Interests of Students
B–2 Develop Student Performance Objectives
B–3 Develop a Unit of Instruction
B–4 Develop a Lesson Plan
B–5 Select Student Instructional Materials
B–6 Prepare Teacher-Made Instructional Materials

Category C: Instructional Execution

C–1 Direct Field Trips
C–2 Conduct Group Discussions, Panel Discussions, and Symposiums
C–3 Employ Brainstorming, Buzz Group, and Question Box Techniques
C–4 Direct Students in Instructing Other Students
C–5 Employ Simulation Techniques
C–6 Guide Student Study
C–7 Direct Student Laboratory Experience
C–8 Direct Students in Applying Problem-Solving Techniques
C–9 Employ the Project Method
C–10 Introduce a Lesson
C–11 Summarize a Lesson
C–12 Employ Oral Questioning Techniques
C–13 Employ Reinforcement Techniques
C–14 Provide Instruction for Slower and More Capable Learners
C–15 Present an Illustrated Talk
C–16 Demonstrate a Manipulative Skill
C–17 Demonstrate a Concept or Principle
C–18 Individualize Instruction
C–19 Employ the Team Teaching Approach
C–20 Use Subject Matter Experts to Present Information
C–21 Prepare Bulletin Boards and Exhibits
C–22 Present Information with Models, Real Objects, and Flannel Boards
C–23 Present Information with Overhead and Opaque Materials
C–24 Present Information with Filmstrips and Slides
C–25 Present Information with Films
C–26 Present Information with Audio Recordings
C–27 Present Information with Televised and Videotaped Materials
C–28 Employ Programmed Instruction
C–29 Present Information with the Chalkboard and Flip Chart

Category D: Instructional Evaluation

D–1 Establish Student Performance Criteria
D–2 Assess Student Performance: Knowledge
D–3 Assess Student Performance: Attitudes
D–4 Assess Student Performance: Skills
D–5 Determine Student Grades
D–6 Evaluate Your Instructional Effectiveness

Category E: Instructional Management

E–1 Project Instructional Resource Needs
E–2 Manage Your Budgeting and Reporting Responsibilities
E–3 Arrange for Improvement of Your Vocational Facilities
E–4 Maintain a Filing System
E–5 Provide for Student Safety
E–6 Provide for the First Aid Needs of Students
E–7 Assist Students in Developing Self-Discipline
E–8 Organize the Vocational Laboratory
E–9 Manage the Vocational Laboratory

Category F: Guidance

F–1 Gather Student Data Using Formal Data-Collection Techniques
F–2 Gather Student Data Through Personal Contacts
F–3 Use Conferences to Help Meet Student Needs
F–4 Provide Information on Educational and Career Opportunities
F–5 Assist Students in Applying for Employment or Further Education

Category G: School-Community Relations

G–1 Develop a School-Community Relations Plan for Your Vocational Program
G–2 Give Presentations to Promote Your Vocational Program
G–3 Develop Brochures to Promote Your Vocational Program
G–4 Prepare Displays to Promote Your Vocational Program
G–5 Prepare News Releases and Articles Concerning Your Vocational Program
G–6 Arrange for Television and Radio Presentations Concerning Your Vocational Program
G–7 Conduct an Open House
G–8 Work with Members of the Community
G–9 Work with State and Local Educators
G–10 Obtain Feedback about Your Vocational Program

Category H: Student Vocational Organization

H–1 Develop a Personal Philosophy Concerning Student Vocational Organizations
H–2 Establish a Student Vocational Organization
H–3 Prepare Student Vocational Organization Members for Leadership Roles
H–4 Assist Student Vocational Organization Members in Developing and Financing a Yearly Program of Activities
H–5 Supervise Activities of the Student Vocational Organization
H–6 Guide Participation in Student Vocational Organization Contests

Category I: Professional Role and Development

I–1 Keep Up-to-Date Professionally
I–2 Serve Your Teaching Profession
I–3 Develop an Active Personal Philosophy of Education
I–4 Serve the School and Community
I–5 Obtain a Suitable Teaching Position
I–6 Provide Laboratory Experiences for Prospective Teachers
I–7 Plan the Student Teaching Experience
I–8 Supervise Student Teachers

Category J: Coordination of Cooperative Education

J–1 Establish Guidelines for Your Cooperative Vocational Program
J–2 Manage the Attendance, Transfers, and Terminations of Co-Op Students
J–3 Enroll Students in Your Co-Op Program
J–4 Secure Training Stations for Your Co-Op Program
J–5 Place Co-Op Students on the Job
J–6 Develop the Training Ability of On-the-Job Instructors
J–7 Coordinate On-the-Job Instruction
J–8 Evaluate Co-Op Students' On-the-Job Performance
J–9 Prepare for Students' Related Instruction
J–10 Supervise an Employer-Employee Appreciation Event

RELATED PUBLICATIONS

Student Guide to Using Performance-Based Teacher Education Materials
Resource Person Guide to Using Performance-Based Teacher Education Materials
Guide to the Implementation of Performance-Based Teacher Education

For information regarding availability and prices of these materials contact—

AAVIM
American Association for Vocational Instructional Materials
120 Engineering Center • Athens, Georgia 30602 • (404) 542–2586